

NJDOT Bureau of Research
QUARTERLY PROGRESS REPORT

This page summarizes all of the open tasks under the Cambridge Systematics contract with the research bureau.

| Task | Project Budget | Budget Expended | % of Budget Expended | % of Work Complete |
|--|-----------------------|------------------------|-----------------------------|---------------------------|
| 18b – Local Pavement Management Systems | \$ 67,476.86 | \$ 67,476.86 | 100% | 99% |
| 18d – Local Pavement Management Systems | \$19,480.00 | \$19,480.00 | 100% | 99% |
| 18e – Web-based Data Storage | \$16,887.00 | \$11,820.90 | 70% | 70% |
| 18f – Local Pavement Management Systems | \$31,864.26 | \$19,928.21 | 62.5% | 62.5% |
| 18g – Research Bureau Program Development | \$51,547.28 | \$39,062.98 | 76% | 76% |
| 19 – Oversize/Overweight Permitting – Phase II | \$100,000.00 | \$100,000.00 | 100% | 98% |

NJDOT Bureau of Research
QUARTERLY PROGRESS REPORT

| | | | |
|--|-----------------------------------|---|--|
| Project Title: | Local Pavement Management Systems | | |
| RFP NUMBER: 7307857, 7308970 | | NJDOT RESEARCH PROJECT MANAGER: Nazhat Aboobaker | |
| TASK ORDER NUMBER: 18b | | PRINCIPAL INVESTIGATOR: Josh DeFlorio, Hugh Louch | |
| Project Starting Date: 12/09/2010 Project Ending Date: 11/30/2012 | | Period Starting Date: 7/1/2012 Period Ending Date: 9/30/2012 | |

| Task | % of Total Project Budget | Total Budget | % of Task This Quarter | Cost This Quarter | % of Task to Date | Total Cost to Date |
|---------------------------------|------------------------------------|-----------------|---------------------------------|----------------------|-------------------------|-----------------------|
| Original Scope | | | | | | |
| 1. State of the Practice Review | 34% | \$ 29,855.50 | 0% | \$0 | 99% | \$ 29,855.50 |
| 2. Review Available Tools | 20% | \$ 17,232.56 | 0% | \$0 | 99% | \$ 17,232.56 |
| 3. Develop Recommendations | 15% | \$12,955.12 | 0% | \$0 | 99% | \$ 12,955.12 |
| 4. Final Report ¹ | 9% | \$7,433.68 | 0% | \$0 | 99% | \$ 7,433.68 |
| TOTAL | 100% | \$ 67,476.86 | 0% | \$0 | 99% | \$ 67,476.86 |

Project Objectives:

The task order will identify the existing state of the practice in pavement management at the local level in New Jersey, review potential options to increase the consistency of these efforts, and develop recommendations for NJDOT to support these efforts.

Project Abstract:

The task order will examine current pavement management practices in New Jersey, identify potential tools and options for developing a decision support system for use at the county level, and develop recommendations to help NJDOT better support pavement management practices at the local level.

1. Progress this Quarter by Task

Task 1:

- Complete.

¹ Final report submission will incorporate products from 18d and 18f

Task 2:

- Complete.

Task 3:

- Complete.

Task 4:

- Documented all research in NJDOT format (report to be issued upon content finalization)

2. Proposed activities for next quarter by task**Task 1:**

- Not applicable (task closed out).

Task 2:

- Not applicable (task closed out).

Task 3:

- Not applicable (task closed out).

Task 4:

- Complete and submit final report.

3. List of deliverables provided in this quarter by task (product date):

- Pavement management workshops with North and South Jersey counties (9/24 and 9/26), including all PowerPoints, agendas, and resulting notes.
- Local Pavement Management Working Group pre-workshop meeting at NJDOT (9/13)
- Pavement management collection cost draft memorandum (9/28)

4. Progress on Implementation and Training Activities:

- No work on implementation or training in this period.

5. Problems/Proposed Solutions:

- None

| | |
|------------------------------------|-------------|
| Total Project Budget | \$67,476.86 |
| Contract Amount: | \$67,476.86 |
| Total Project Expenditure to date | \$67,476.86 |
| % of Total Project Budget Expended | 100% |

* estimated to September 30, 2012

NJDOT Bureau of Research
QUARTERLY PROGRESS REPORT

| | | |
|--|---|--|
| Project Title: | Local Pavement Management Systems | |
| RFP NUMBER: 7307857, 7308970 | NJDOT RESEARCH PROJECT MANAGER: Nazhat Aboobaker | |
| TASK ORDER NUMBER: 18d | PRINCIPAL INVESTIGATOR: Josh DeFlorio, Hugh Louch | |
| Project Starting Date: 12/09/2010 Project Ending Date: 11/30/2012 | Period Starting Date: 7/1/2012 Period Ending Date: 9/30/2012 | |

| Task | % of Total Project Budget | Total Budget | % of Task This Quarter | Cost This Quarter | % of Task to Date | Total Cost to Date |
|--|------------------------------------|--------------|---------------------------------|----------------------|-------------------------|-----------------------|
| Add-On | | | | | | |
| 1. Meetings with MPOs and NJDOT | 36% | \$7,017.24 | 2.8% | \$429.63 | 99% | \$7,017.24 |
| 2. Framework Revisions | 28% | \$5,459.16 | 0% | 0 | 99% | \$5,459.16 |
| 3. Local PMS Presentation Guidance to MPOs | 36% | \$7,003.60 | 0% | 0 | 99% | \$7,003.60 |
| TOTAL | 100% | \$19,480 | 2% | \$5,639.92 | 99% | \$19,480.00 |

Project Objectives:

The task order will identify the existing state of the practice in pavement management at the local level in New Jersey, review potential options to increase the consistency of these efforts, and develop recommendations for NJDOT to support these efforts.

Project Abstract:

The task order will examine current pavement management practices in New Jersey, identify potential tools and options for developing a decision support system for use at the county level, and develop recommendations to help NJDOT better support pavement management practices at the local level.

1. Progress this Quarter by Task

Task 1:

- Communication with MPOs and NJDOT.

Task 2:

- Complete.

Task 3:

- Complete.

2. Proposed activities for next quarter by task**Task 1:**

- Not applicable (task closed out).

Task 2:

- Not applicable (task closed out).

Task 3:

- Not applicable (task closed out).

3. List of deliverables provided in this quarter by task (product date):

- Pavement management workshops with North and South Jersey counties (9/24 and 9/26), including all PowerPoints, agendas, and resulting notes.
- Local Pavement Management Working Group pre-workshop meeting at NJDOT (9/13)
- Pavement management collection cost draft memorandum (9/28)

4. Progress on Implementation and Training Activities:

- No work on implementation or training in this period.

5. Problems/Proposed Solutions:

- None

| | |
|------------------------------------|-------------|
| Total Project Budget | \$19,480.00 |
| Contract Amount: | \$19,480.00 |
| Total Project Expenditure to date | \$19,480.00 |
| % of Total Project Budget Expended | 100% |

* estimated to September 30, 2012

NJDOT Bureau of Research
QUARTERLY PROGRESS REPORT

| | | |
|---|---|--|
| Project Title: | Web-based Data Storage | |
| RFP NUMBER: 7307857, 7308970 | NJDOT RESEARCH PROJECT MANAGER: Alejandro Perez-Deleon | |
| TASK ORDER NUMBER: 18e | PRINCIPAL INVESTIGATOR: Aaron Overman | |
| Project Starting Date: 4/15/12 Project Ending Date: 12/31/12 | Period Starting Date: 7/1/2012 Period Ending Date: 9/30/2012 | |

| Task | % of Total Project Budget | Total Budget | % of Task This Quarter | Cost This Quarter | % of Task to Date | Total Cost to Date |
|---|---------------------------|--------------|------------------------|-------------------|-------------------|--------------------|
| 1: Develop Report on Web-based Data Storage | 100% | \$16,887.00 | 70% | \$11,820.90 | 70% | \$11,820.90 |
| TOTAL | 100% | \$16,887.00 | | \$11,820.90 | | \$11,820.90 |

Project Objectives:

The task order will identify the use of web-based data storage by other Departments of Transportation (DOT) and other transportation agencies. It will also examine the specific data storage needs.

Project Abstract:

The task order will develop a report for NJDOT that describes current uses of web-based data storage and the options for the DOT to consider.

1. Progress this Quarter by Task

Task 1:

- Conducted literature search; identified written guidance and adopted policies from several states
- Conducted a written and telephone survey of state DOT data managers
- Follow up with nonresponding states to gain additional data
- Researched states that did not respond for any publicly available information
- Summarize findings to date in a presentation
- Summarize findings in writing and present draft report

2. Proposed activities for next quarter by task

Task 1:

- Receive comment on draft report, respond to client comments, and finalize report.

3. List of deliverables provided in this quarter by task (product date):

- Update on Task Order #18E (7/20/2012)

4. Progress on Implementation and Training Activities:

- No work on implementation or training in this period.

5. Problems/Proposed Solutions:

- None at this time.

| | |
|------------------------------------|-------------|
| Total Project Budget | \$16,887.00 |
| Contract Amount: | \$16,887.00 |
| Total Project Expenditure to date* | \$11,820.90 |
| % of Total Project Budget Expended | 70% |

* estimated to September 30, 2012

NJDOT Bureau of Research
QUARTERLY PROGRESS REPORT

| | | | |
|--|---|--|--|
| Project Title: | Local Pavement Management Systems | | |
| RFP NUMBER: 7307857, 7308970 | NJDOT RESEARCH PROJECT MANAGER: Nazhat Aboobaker | | |
| TASK ORDER NUMBER: 18f | PRINCIPAL INVESTIGATOR: Josh DeFlorio, Hugh Louch | | |
| Project Starting Date: 12/09/2010 Project Ending Date: 11/30/2012 | Period Starting Date: 7/1/2012 Period Ending Date: 9/30/2012 | | |

| Task | % of Total Project Budget | Total Budget | % of Task This Quarter | Cost This Quarter | % of Task to Date | Total Cost to Date |
|--|------------------------------------|-----------------|---------------------------------|----------------------|-------------------------|-----------------------|
| Add-On 2 | | | | | | |
| 1. Introductory County Outreach Meetings | 41% | \$13,035.49 | 99% | \$13,035.49 | 99% | \$13,035.49 |
| 2. Follow Up County Outreach Meetings (Optional) | 35% | \$11,021.57 | 0% | \$0 | 0% | \$0 |
| 3. Local PMS Working Group | 16% | \$5,034.80 | 82% | \$4,120.32 | 82% | \$4,120.32 |
| 4. SAGE Cost Data Transcription | 9% | \$2,772.40 | 99% | \$2,772.40 | 99% | \$2,772.40 |
| TOTAL | 100% | \$31,864.26 | | \$5,639.92 | 62.5% | \$19,928.21 |

Project Objectives:

The task order will identify the existing state of the practice in pavement management at the local level in New Jersey, review potential options to increase the consistency of these efforts, and develop recommendations for NJDOT to support these efforts.

Project Abstract:

The task order will examine current pavement management practices in New Jersey, identify potential tools and options for developing a decision support system for use at the county level, and develop recommendations to help NJDOT better support pavement management practices at the local level.

1. Progress this Quarter by Task

Task 1:

- Planned, coordinated, prepared, and conducted two county level pavement management workshops (one for NJTPA region, one for DVRPC/SJTPO regions)

Task 2:

- No work performed.

Task 3:

- Pre-workshop meeting and coordination with Local Pavement Management Working Group (9/13/2012)
- Extensive pre-workshop communication with MPOs, NJDOT, and select counties.

Task 4:

- Catalogued 100 SAGE pavement preservation records in an Excel spreadsheet, including quality control.

2. Proposed activities for next quarter by task**Task 1:**

- Not applicable (task closed out).

Task 2:

- Conduct second round of county pavement management workshops, if authorized.

Task 3:

- Continue coordination activities with Local Pavement Management Working Group.

Task 4:

- Not applicable (task closed out).

3. List of deliverables provided in this quarter by task (product date):

- Pavement management workshops with North and South Jersey counties (9/24 and 9/26), including all PowerPoints, agendas, and resulting notes.
- Local Pavement Management Working Group pre-workshop meeting at NJDOT (9/13)
- Pavement management collection cost draft memorandum (9/28)

4. Progress on Implementation and Training Activities:

- No work on implementation or training in this period.

5. Problems/Proposed Solutions:

- None

| | |
|------------------------------------|-------------|
| Total Project Budget | \$31,864.26 |
| Contract Amount: | \$31,864.26 |
| Total Project Expenditure to date* | \$19,928.21 |
| % of Total Project Budget Expended | 62.5% |

* estimated to September 30, 2012

NJDOT Bureau of Research
QUARTERLY PROGRESS REPORT

| | | |
|--|---|--|
| Project Title: | Research Bureau Program Development | |
| RFP NUMBER: 7307857, 7308970 | NJDOT RESEARCH PROJECT MANAGER: Paul Thomas | |
| TASK ORDER NUMBER: 18g | PRINCIPAL INVESTIGATOR: Hugh Louch | |
| Project Starting Date: 8/1/2012 Project Ending Date: 10/30/2012 | Period Starting Date: 7/1/2012 Period Ending Date: 9/30/2012 | |

| Task | % of Total Project Budget | Total Budget | % of Task This Quarter | Cost This Quarter | % of Task to Date | Total Cost to Date |
|--|---------------------------|--------------|------------------------|-------------------|-------------------|--------------------|
| 1 - Develop Interview Guides | 31% | \$ 15,830.72 | 100% | \$15,830.72 | 100% | \$15,830.72 |
| 2 - Conduct and Summarize Interviews with Senior NJDOT Staff | 53% | \$ 27,421.20 | 40% | \$23,232.26 | 40% | \$23,232.26 |
| 3 - Final Report | 16% | \$ 8,295.36 | 0% | 0 | 0% | 0 |
| TOTAL | | \$ 51,547.28 | | \$39,062.98 | | \$39,062.98 |

Project Objectives:

The task order will develop a detailed list of research ideas for the NJDOT Bureau of Research, based on interviews with staff from NJDOT, NJ Transit, NJ Motor Vehicle Commission (MVC), and University Professors supporting research.

Project Abstract:

Research is a critical contributor the success of New Jersey's transportation system. A well rounded research program, connected to the priorities of NJDOT, NJ Transit, and the NJ MVC will help ensure that research is providing value to its users. This task works with the users of research to help identify and describe their research needs.

1. Progress this Quarter by Task

Task 1:

- Developed interview guides for NJDOT staff and University professors
- Drafted outreach emails to NJDOT, NJ Transit, and MVC staff and University Professors
- Conducted background research on key research areas to support interviews

Task 2:

- Conducted outreach to NJDOT, NJ Transit, and MVC Staff and University professors to set up interviews
- Conducted interviews with several NJDOT staff
- Conduct interviews with University Professors
- Developed initial list of research ideas

Task 3:

- No work completed to date

2. Proposed activities for next quarter by task**Task 1:**

- Not applicable (task closed out).

Task 2:

- Conduct additional interviews with NJDOT and NJ Transit Staff
- Conduct additional interviews with University professors
- Develop final list of research concepts

Task 3:

- Draft final report

3. List of deliverables provided in this quarter by task (product date):

- NJDOT, NJ Transit, and MVC staff interview guide
- University Professor interview guide
- First draft of research ideas

4. Progress on Implementation and Training Activities:

- No work on implementation or training in this period.

5. Problems/Proposed Solutions:

- None

| | |
|------------------------------------|-------------|
| Total Project Budget | \$51,547.28 |
| Contract Amount: | \$51,547.28 |
| Total Project Expenditure to date* | \$39,062.98 |
| % of Total Project Budget Expended | 76% |

* estimated to September 30, 2012

NJDOT Bureau of Research
QUARTERLY PROGRESS REPORT

| | | | |
|--|--|--|--|
| Project Title: | Oversize/Overweight Permitting – Phase II | | |
| RFP NUMBER: 7307857, 7308970 | NJDOT RESEARCH PROJECT MANAGER: Priscilla Ukpah | | |
| TASK ORDER NUMBER: 19 | PRINCIPAL INVESTIGATOR: Christopher Titze, Shelley Feese, and Brandon Rivenburg | | |
| Project Starting Date: 11/01/2011 Project Ending Date: 10/30/2012 | Period Starting Date: 07/01/2012 Period Ending Date: 09/30/2012 | | |

| Task | % of Total Project Budget | Total Budget | % of Task This Quarter | Cost This Quarter | % of Task to Date | Total Cost to Date |
|---|---------------------------|--------------|------------------------|-------------------|-------------------|--------------------|
| Task 1: Permit Type and Subcategory Definition | 15% | \$14,784 | 0% | \$0 | 100% | \$14,784 |
| Task 2: Clarification of OS/OW Permitting Activities of Other States | 9% | \$9,362 | 0% | \$0 | 100% | \$9,362 |
| Task 3: Assist in the Identification of Opportunities to Create New Permit Types in the State of New Jersey | 16% | \$15,914 | 28% | \$4,456 | 100% | \$15,914 |
| Task 4: Fine/Fee Comparison | 22% | \$22,295 | 35% | \$7,803 | 100% | \$22,295 |
| Task 5: Examination and Review of Multi-State Compact | 12% | \$11,494 | 28% | \$3,218 | 100% | \$11,494 |
| Task 6: Examination of the Relationship of Freight Movements and Infrastructure Damage | 11% | \$11,426 | 28% | \$3,199 | 100% | \$11,426 |
| Task 7: Project Management | 15% | \$14,725 | 22% | \$3,240 | 100% | \$14,725 |
| TOTAL | 100% | \$100,000 | 22% | \$21,891.91 | 100% | \$100,000.00 |

Project Objectives:

The objective of this project is to examine oversize/overweight (OS/OW) permitting practices in the United States, with a focus on “best practices” from other states and agencies, and use the lessons learned and the experiences of other jurisdictions to identify opportunities to support the Department in improving permitting in New Jersey.

Project Abstract:

In addition to the information gathered (catalogued in the national database, regional poster display, and final report) in the first phase of the Oversize/Overweight Permitting Practices

Review a series of topics/issues were identified by agency stakeholders as critical in determining next steps in operational practice.

New Jersey Department of Transportation would like to seek more information regarding how neighboring states, and others utilizing the Bentley system throughout the nation, are addressing the following questions:

1. **Routing** – How do other states handle routing their over-dimensional loads? Do they route them or issue a blanket permit? If route specific, do they use the minimum clearance in one direction or allow the carrier to submit a route and accept the liability that their load can clear the route? If they allow the carrier to accept liability for a route, do they require escort(s)? If route specific, do they allow the carrier to revise the approved route after the permit has been issued but prior to travel dates? Do they allow extensions to the permit end date? What other conditions apply when states allow changes to approved permits prior to travel dates?
2. **Local and County Permitting** – How do other states handle permitting of local/county roads – do other agencies/entities perform this function nationally or within the region? How is revenue accounted for and/or split?
3. **Definition of Permit Types/Categories** – Review neighboring states for availability of and terms(cost/time) for the following permit types:
 - Emergency Permits – how do they handle need for permits in event of emergency?
 - Boat Permits – do other states issue a special permit for transport of boats?
 - Multi-Trip Permits – do other states allow for multi-trip permits to accommodate certain industries, like the movement of construction equipment? How do other states define what is considered multi-trip/annual/blanket (ex.: is frequent movement of a boat in DE considered separate over-dimensional permits for each move or is there a blanket permit)?
 - General Blanket Permit – do other states offer a blanket OW or OD permit?
4. **Creation of New Permits** – how are other states permitting these particular loads, how are they defined, and have other states created new permit types to accommodate particular freight movements?
5. **Relationship of Freight Movements and Infrastructure Damage** – How did Pennsylvania's ton per mile fee system get developed and how does it work? Is it a statute or a regulation? Did this approach provide a means to justify permit fee increase(s)?
6. **Escort Policy and Fees** - How do other states approach the need for and cost of escorting overweight or over-dimensional loads? What are the escort requirements for neighboring states? How do they compare to NJ? Who can provide escorts (State Police; Local Police; Private escort service)? Do these states reimburse police for their escorting services? If so, what is the cost? Is the cost born by the carrier or the state?

7. **Fee Comparison** - How are revenues from permit fees collected and allocated (i.e., what is the money trail)? Where does money collected from permit fees go (General Fund; Highway maintenance; Enforcement)?

Are fees used to manage or encourage certain commodity flows in neighboring states? Examples include the Containerized Permitting in Maryland which has no permit fee; does NJ have anything like this to encourage port traffic (competitive edge) and what are other states (i.e., Virginia) doing in regards to this and are they getting the fee through another mechanism?

8. **Fine Comparison** - How do New Jersey's current fines compare to neighboring states? How do GVW fines and axle weight fines compare to our neighboring states? (Ex.: Anecdotally, New Jersey State Police interpret gross vehicle weight fine as adequate, but axle weight fine as low).

Where does money collected from permit fines go (General Fund; Highway maintenance; Enforcement)?

Tri-axle Weight Compliance – How do other states address axle weight violations when a vehicle is not in excess of the gross vehicle weight limit? New Jersey is particularly interested in how Dump Trucks (Class 7) vehicles and those with weight in excess of 77,000 lbs. for a tri-axle configuration are handled. New Jersey is also interested in reviewing overweight fines for Dump Trucks and Liquid Tankers – how do they compare to our neighboring states?

9. **Exceptional Hauling Permits** – Understanding that New Jersey is not a “Divisible Load” state, questions have arose concerning the potential ability for New Jersey to permit certain types of commodities that are considered “divisible” along non-interstate or non-National Highway System roadways. Maryland created an Exceptional Hauling Permit to accommodate the safe and complaint movement of particular loads. Permitting Compacts – What regional compacts exist, which states participate in each, do they issue permits on behalf of other compact states for envelope vehicles, and how are fees collected and dispersed among states? What are some examples of best practices among compact states and efficiencies (e.g., operationally and carrier recognized) achieved through these arrangements?

10. **E-permitting System Best Practices** – What are practical lessons learned from other Bentley system user states related to streamlining processes and coordinating with neighboring states.

1. Progress this Quarter by Task

Task 1:

- Completed written technical narrative for integration into report.

Task 2:

- Completed written technical narrative for integration into report.

Task 3:

- Completed the identification of opportunities to create new permit types in New Jersey.
- Developed draft new permit types for NJDOT personnel for review and comment.
- Completed written technical narrative for integration into report.

Task 4:

- Completed fine/fee analysis.
- Completed written technical narrative for integration into report.

Task 5:

- Completed examination of multi-state compacts.
- Completed written technical narrative for integration into report.

Task 6:

- Completed examining the best practices and current manner in which agencies (PennDOT) link freight movements and infrastructure damage.
- Explored opportunities to leverage linking freight movements to infrastructure damage.
- Completed written technical narrative for integration into report.

Task 7:

- Project management meetings with freight services staff and research personnel.
- Project management responsibilities including monthly progress reports.
- Submitted and review initial project findings with technical project manager

2. Proposed activities for next quarter by task

Task 1:

- Task Completed

Task 2:

- Task Completed

Task 3:

- Task Completed

Task 4:

- Task Completed

Task 5:

- Task Completed

Task 6:

- Task Completed

Task 7:

- Submit draft final report for review and comment.
- Make requested revision and edits to the draft final report.

- Submit final report for final review and approval.
- Submit final deliverable (Final Report) with all attachment and research documentation.
- Submit draft executive summary for review and approval.
- Submit final executive summary.

3. List of deliverables provided in this quarter by task (product date):

- Submitted initial findings for review and comment.

4. Progress on Implementation and Training Activities:

- No work on implementation or training in this period

5. Problems/Proposed Solutions:

- Not applicable.

| | |
|------------------------------------|-----------|
| Total Project Budget | \$100,000 |
| Contract Amount: | \$100,000 |
| Total Project Expenditure to date | \$100,000 |
| % of Total Project Budget Expended | 100% |